We claim:

1. A method of making an optical fiber array comprising the steps of:

stripping a first middle portion of a first coated optical ribbon fiber so that the first middle portion includes only bare optical fibers that are bounded on each side of the first middle portion by a coated portion of the first coated optical ribbon fiber;

stripping a second middle portion of a second coated optical ribbon fiber so that the second middle portion includes only bare optical fibers that are bounded on each side of the second middle portion by a coated portion of the second coated optical ribbon fiber;

overlapping the first middle portion of the first coated optical ribbon fiber with the second middle portion of the second coated optical ribbon fiber so that the overlapping bare optical fibers of the first and second middle portions alternate between strands of the first coated optical ribbon fiber and strands of the second coated optical ribbon fiber and wherein the first and the second middle portions define an interior channel bounded by the overlapping bare optical fibers;

passing a bar through the interior channel;

positioning the overlapping bare optical fibers on a substrate having a plurality of parallel grooves;

positioning a cover over the overlapping bare optical fibers so that the overlapping bare optical fibers are held in place between the cover and the substrate; and

cleaving the overlapping bare optical fibers along an end of the cover and the substrate.

2. A method of making an optical fiber array comprising the steps of:

providing a first ribbon fiber and a second ribbon fiber each having a plurality of optical fibers enclosed within a coating;

stripping a portion of the coating from the first ribbon fiber and the second ribbon fiber to expose the optical fibers;

overlapping the stripped portion of the first ribbon fiber with the stripped portion of the second ribbon fiber so that the optical fibers of the first ribbon fiber intermingle with the optical fibers of the second ribbon fiber;

providing a substrate having a plurality of grooves;

placing the first ribbon fiber and the second ribbon fiber on the substrate so that the exposed optical fibers rest on the plurality of grooves; and

placing a spacer between the intermingled optical fibers of the first ribbon fiber and the optical fibers of the second ribbon fiber;

3. The method of making an optical fiber array of claim 2, further comprising the steps of:

providing a cover; and

placing the cover on the substrate to hold the plurality of optical fibers in place.

4. The method of making an optical fiber array of claim 3, wherein the cover and the substrate form an interior passage through which the optical fibers pass and an end at which the interior passage terminates, and wherein the method further comprises the step of cleaving the optical fibers at the end formed by the substrate and the cover.

5. The method of making an optical fiber array of claim 2, wherein in the step of providing the first ribbon fiber and the second ribbon fiber the number of optical fibers in the first ribbon fiber is the same as the number of optical fibers in the second ribbon fiber and wherein the inter-fiber spacing in the first ribbon fiber is the same as the inter-fiber spacing in the second ribbon fiber.

6. The method of making an optical fiber array of claim 2, wherein the step of stripping the portion of the coating from the first ribbon fiber and the second ribbon fiber comprises stripping a middle portion of the coating to reveal a window exposing a middle portion of the optical fibers.

7. The method of making an optical fiber array of claim 6, wherein the step of stripping the portion of the coating from the first ribbon fiber and the second ribbon fiber comprises chemically etching the coating.

8. The method of making an optical fiber array of claim 6, wherein the step of stripping the portion of the coating from the first ribbon fiber and the second ribbon fiber comprises mechanically removing the coating.

9. The method of making an optical fiber array of claim 6, wherein the step of overlapping comprises overlapping the window of the first ribbon fiber with the window of the second ribbon fiber so that the exposed middle portion of the optical fibers of the first ribbon fiber overlap with the exposed middle portion of the optical fibers of the second ribbon fiber.

10. The method of making an optical fiber array of claim 2, wherein the step of providing the substrate comprises providing a substrate having a base and an elevated step wherein the plurality of grooves are formed in the elevated step.

11. The method of making an optical fiber array of claim 10, wherein the step of placing the first ribbon fiber and the second ribbon fiber on the substrate comprises resting a first coated portion of the first ribbon fiber on the base of the substrate and resting a second coated portion of the second ribbon fiber on the first coated portion of the first ribbon fiber.

12. The method of making an optical fiber array of claim 10, further comprising the steps of providing a cover and joining the cover with the elevated step.

13. The method of making an optical fiber array of claim 2, wherein the step of overlapping comprises flexing the first ribbon fiber in an upward direction so that the first ribbon fiber forms an upward arch and flexing the second ribbon fiber in a downward direction so that second ribbon fiber forms a downward arch and wherein a portion of the upward arch intersects with and extends above a portion of the downward arch.

14. The method of making an optical fiber array of claim 13, wherein the step of overlapping comprises forming an interior channel between the portion of the upward arch that intersects and extends above the portion of the downward arch.

15. The method of making an optical fiber array of claim 14, wherein the step of placing the spacer comprises passing the spacer through the interior channel.

16. The method of making an optical fiber array of claim 14, wherein the step of placing the spacer comprises passing a rod through the interior channel.

17. Them method of making an optical fiber array of claim 4, wherein

the step of providing the substrate comprises providing a substrate having a base and an elevated step wherein the plurality of grooves are formed in the elevated step;

the step of placing the first ribbon fiber and the second ribbon fiber on the substrate comprises resting a first coated portion of the first ribbon fiber on the base of the substrate and resting a second coated portion of the second ribbon fiber on the first coated portion of the first ribbon fiber;

the step of placing the cover comprises joining the cover to the elevated step so that the cover and the elevated step form the interior passage through which the optical fibers pass and form the end at which the interior passage terminates.

18. The method of claim 17, wherein the end comprises a plane and wherein the step of cleaving comprises cleaving the optical fibers along the plane of the end.

19. The method of making an optical fiber array of claim 2, wherein:

in the step of providing the first ribbon fiber and the second ribbon fiber the number of optical fibers in the first ribbon fiber is the same as the number of optical fibers in the second ribbon fiber and wherein the inter-fiber spacing in the first ribbon fiber is the same as the inter-fiber spacing in the second ribbon fiber;

the step of stripping the portion of the coating from the first ribbon fiber comprises stripping a middle portion of the coating to reveal a window exposing a middle portion of the optical fibers;

the step of overlapping comprises flexing the first ribbon fiber in an upward direction so that the first ribbon fiber forms an upward arch and flexing the second ribbon fiber in a downward direction so that second ribbon fiber forms a downward arch and wherein a portion of the upward arch intersects with and extends above a portion of the downward arch to form forming an interior channel between the portion of the upward arch that intersects and extends above the portion of the downward arch;

the step of providing the substrate comprises providing a substrate having a base and an elevated step wherein the plurality of grooves are formed in the elevated step;

the step of placing the first ribbon fiber and the second ribbon fiber on the substrate comprises resting a first coated portion of the first ribbon fiber on the base of the substrate and resting a second coated portion of the second ribbon fiber on the first coated portion of the first ribbon fiber; and

the step of placing the spacer comprises passing the spacer through the interior channel; and

wherein the method further comprises the steps of:

providing a cover;

joining the cover to the elevated step so that the cover and the elevated step form the interior passage through which the optical fibers pass and form the end at which the interior passage terminates;

cleaving the optical fibers along a plane formed by the end of the cover and the elevated step.

20. A method of making an optical array comprising the steps of:

stripping a middle portion of two ribbon fibers to expose a window of bare optical fibers wherein the two ribbon fibers have a matching inter-fiber pitch;

bending and overlapping the bare optical fibers to form an interior channel whereby the overlapping portion of the bare optical fibers have a pitch approximately equal to one half of the matching inter-fiber pitch;

passing a rod through the interior channel;

placing a portion of the bare optical fibers on a substrate having a plurality of parallel grooves that receive the bare optical fibers, wherein the inter-groove pitch is approximately equal to one half of the matching inter-fiber pitch;

placing a cover over the portion of the bare optical fibers on the substrate;

applying an adhesive to hold the bare optical fibers in place;

removing the rod from the interior channel; and

cleaving the bare optical fibers.